same time, however, the ability to decrease coupling between the substrate **7** and bond pad **47** is retained, and loss of the bond pad **47** is significantly decreased.

In another embodiment of the bond pad structure **50**, the bond pad **47** may be placed on the substrate **7** along with, for example, device **10**, for example, a coplanar waveguide, thermocouples **30**, first circuit **32**, and second circuit **34**, for example, detection and output circuitry. In this embodiment, the substrate **7** may be etched in two steps, as illustrated in FIGS. **6**A, **6**B, **7**A, and **7**B. Thus, a single cavity **45** may be formed suspending the bond pad **47**, device **10**, thermocouples **30**, first circuit **32**, and second circuit **34**.

While this invention has been described in connection with what is presently considered to be the most practical and preferred embodiment, it is to be understood that the invention is not limited to the disclosed embodiment, but, on the contrary, is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims.

What is claimed is:

1. A monolithic integrated circuit assembly, comprising:

a substrate having a surface;

a device having a length substantially greater than its width, suspended above a single cavity formed in the surface of the substrate and extending partially therethrough;

at least one sensor, at least a portion of which is suspended above the single cavity and in proximity to a resistive end of said device and a distance away from said device sufficient to minimize electrical coupling between the sensor and said device; and

circuitry located on a non-suspended portion of the substrate.

2. The assembly of claim **1**, wherein said substrate is made of silicon.

3. The assembly of claim **1**, wherein said at least one sensor comprises a thermocouple.

4. The assembly of claim **3**, wherein said device is a coplanar waveguide which includes:

coplanar first and second ground conductors, said ground conductors spaced apart from one another and extending in parallel for the length of the waveguide and in the same direction; and

a signal conductor for receiving a power signal and which is coplanar with said first and second ground conductors and located between and spaced apart from said first and second conductors, said signal conductor extending in parallel with said first and second ground conductors.

5. The assembly of claim **4**, wherein said first and second ground conductors terminate at a resistive end and have matching resistive elements.

6. The assembly of claim **4**, wherein said at least one thermocouple sensor comprises:

a first junction located on the surface of the single cavity a distance from the suspended portion of the device such that the first junction is substantially at an ambient temperature; and

a second junction located above the single cavity and in proximity to the resistive end of the coplanar waveguide device and a distance away from said coplanar waveguide device to minimize electrical coupling between the thermocouple and the coplanar waveguide device, wherein the distance from the resistive end of the coplanar waveguide device to the second junction is approximately equal to the distance from the second junction to the edge of the single cavity.

7. A semiconductor device, comprising:

a semiconductor substrate having a surface; and

a single cavity formed in said substrate surface from a plurality of openings in the surface of the substrate, each of said plurality of openings spaced apart from another and forming at least two parallel rows extending a distance along a surface of the substrate, the openings together having been arranged to enable the application of at least one etchant to form said single cavity.

8. The semiconductor device of claim **7**, further comprising:

a device located on the surface of the substrate in relation to the plurality of openings such that they extend the length of the substrate along the outer perimeter of the device.

9. The semiconductor of claim **8**, wherein the device is a coplanar waveguide suspended above the single cavity and having a length and a width, which length may extend up to approximately the entire length of the substrate.

10. The semiconductor device of claim **9**, wherein the coplanar waveguide includes:

coplanar first and second ground conductors, said ground conductors spaced apart from one another and extending in parallel for the length of the waveguide and in the same direction; and

a signal conductor for receiving a power signal and which is coplanar with said first and second ground conductors and located between and spaced apart from said first and second conductors, said signal conductor extending in parallel with said first and second ground conductors.

11. The semiconductor device of claim **10**, wherein the first and second ground conductors terminate at a resistive end and have matching resistive elements.

12. The semiconductor device of claim **7**, wherein said single cavity is formed by applying a first and a second etchant in the plurality of openings.

13. The semiconductor device of claim **12**, wherein said first etchant is isotropic and said second etchant is anisotropic.

14. The semiconductor device of claim **7**, wherein said substrate is made of silicon.

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